

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2003-183351

(43)Date of publication of application : 03.07.2003

(51)Int.CI.

C08G 59/20
H01L 23/29
H01L 23/31

(21)Application number : 2001-391194

(22)Date of filing : 25.12.2001

(71)Applicant : SHIN ETSU CHEM CO LTD

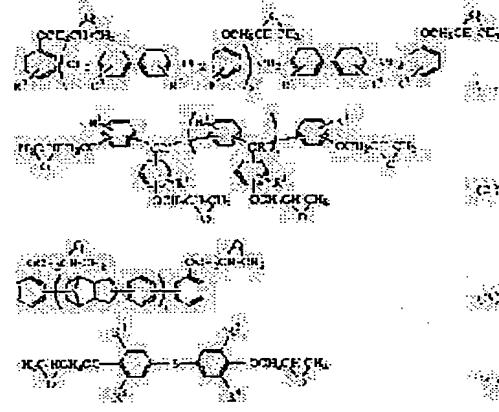
(72)Inventor : SUMIDA KAZUMASA
KUWABARA HARUYOSHI
SHIOBARA TOSHIO

(54) LIQUID EPOXY RESIN COMPOSITION AND SEMICONDUCTOR DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a liquid epoxy resin composition which has favorable adhesive properties, gives a highly moisture-proof cured product, and hence can be a sealing medium for a semiconductor device excellent in high temperature thermal shock.

SOLUTION: The liquid epoxy resin composition which comprises a liquid epoxy resin, a curing agent, a curing accelerator and an inorganic filler. The liquid epoxy resin comprises an epoxy resin (a) which has at most bifunctional epoxy groups in a molecule and is liquid at room temperature and an epoxy resin (b) which has at least bifunctional epoxy groups in a molecule as in formulae (1)–(4) and is solid at room temperature, in a weight ratio of (a)/(b)=9/1–1/4, the mixture having a viscosity of 10,000 Poise or less at 25° C, the composition having a toughness value K1c of 3.0 or more, and a semiconductor device sealed with a cured product of the composition. (In the formulae, R is a hydrogen atom, an alkyl group or a phenyl group, R1–R4 are each a hydrogen atom or a monovalent hydrocarbon group, R' is a hydrogen atom, a methyl group or an ethyl group, x is 0–10, y is 0–6, and z is an integer of 1 or more).



LEGAL STATUS

[Date of request for examination] 28.06.2004

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office